REMARKS

Claims 1 to 20 are currently pending in the present application. No new matter is added.

The Office Action objects to claim 19 as being a method claim dependent from an apparatus claim. Claim 19 has been amended which should obviate this objection.

Claims 1, 2, 10, 13-15 and 19 have been rejected by the Office Action under 35 U.S.C. § 103(a) as being unpatentable over Busse in view of Abdalla. The Office Action concedes that Busse does not disclose a voltage amplifier with a gain greater that one but asserts that it would have been obvious to modify the Busse circuit to include a push-pull amplifier in addition to a source follower in order to provide a pre-amplifier in the pixel itself in order to increase the optical sensitivity.

Busse teaches against the suggested modification. The Applicants in Busse described the charge amplification as follows:

> The proposed solution has a particularly advantageous aspect which is formed by the stability of the transfer function of the circuit. This gain stability of the circuit is due to the fact that the source follower transistor 21 has a stable voltage amplification amounting to 1 which is converted into a charge amplification $G_Q = C_S/C_P$ by means of the sampling capacitor 26. (Busse col. 9, lines 8-23)(emphasis added).

The objective of using the charge capacitance with the stable voltage amplification of one is reiterated by the Busse Applicants in their summary of the invention:

> This object is achieved by means of a sensor which is characterized in that the means for amplifying include a respective source follower transistor whose gate is connected to the conversion element, whose source is connected an active load and to one side of a sampling capacitor, the other side of the

> sampling capacitor being connected to the read-out line via the read-out switching element, and that a respective reset element is connected to the conversion element in order to reset the conversion element to an initial state.
>
> The active load ideally constitutes a current source which impresses a constant channel current on the source follower transistor. The threshold voltage of the source follower transistor is thus stabilized; this threshold voltage is strongly dependent on the channel current, notably in the case of TFTs of amorphous silicon. As a result of the stable threshold voltage, the condition for correct operation of the source follower transistor with adequate stability of the transfer function is satisfied. Therefore, the source follower transistor has a stable voltage amplification of 1. It is converted into a charge amplification $G_Q = C_S/C_P$ by the sampling capacitor, wherein C_P is the capacitance on the conversion element and C_S is the capacitance of the sampling capacitor. The capacitance on the conversion element may again be an intrinsic storage capacitance of the conversion element or an additional capacitance. (Busse col. 2, lines 38-64)(emphasis added).

To modify the Busse device as suggested by the Office Action would obviate this object. As such, Busse teaches against the use of a voltage amplifier (16) having gain greater than 1.

Claims 3-9 and 16-18 have been rejected by the Office Action under 35 U.S.C. § 103(a) as being unpatentable over Busse in view of Abdalla and further in view of Kozlowski. As described above, Busse does not disclose or suggest the feature of a voltage amplifier (16) having gain greater than 1, and teaches away from use of this feature. The additional reference of Kozlowski does not render these claims unpatentable.

Claims 11, 12 and 20 have been rejected by the Office Action under 35 U.S.C. § 103(a) as being unpatentable over Busse in view of Abdalla and further in view of Marshall. As described above, Busse does not disclose or suggest the feature of a voltage amplifier (16) having gain greater than 1, and teaches away from use of this feature. The additional reference of Marshall does not render these claims unpatentable.

In view of the foregoing, Applicants respectfully submit that the specification, the drawings and all claims presented in this application are currently in condition for allowance. Accordingly, Applicants respectfully request favorable consideration and that this application be passed to allowance.

Should any changes to the claims and/or specification be deemed necessary to place the application in condition for allowance, the Examiner is respectfully requested to contact the undersigned to discuss the same.

Respectfully submitted,

Dated: 3/5/08

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